Se 1/989

VFR TERMINAL AREA CHART

SEATTLE

SCALE 1:250,000

Lambert Conformal Conic Projection Standard Parallels 33° and 45°

Topographic data corrected to March 1989

32ND EDITION June 29, 1989

Includes airspace amendments effective June 1, 1989
and all other aeronautical data received by May 4, 1989
Consult appropriate NOTAMs and Flight Information
Publications for supplemental data and current information.

This chart will become *OBSOLETE FOR USE IN NAVIGATION* upon publication of the next edition scheduled for JANUARY 11, 1990

SEATTLE TERMINAL CONTROL AREA

See back of this chart for procedural information within the Seattle Terminal Control Area (TCA)

70 ---Ceiling of TCA in hundreds of feet MSL

18 ---Floor of TCA in hundreds of feet MSL

CONTROL TOWER FREQUENCIES ON SEATTLE VFR TERMINAL AREA CHART

Airports which have control towers are indicated on this chart by the letters CT followed by the primary VHF local control frequency. Selected transmitting frequencies for each control tower are tabulated in the adjoining spaces, the low or medium transmitting frequency is listed first followed by a VHF local control frequency, and the primary VHF and UHF military frequencies, when these frequencies are available. An asterisk (*) follows the part-time tower frequency remoted to the colocated full-time FSS for use as Airport Advisory Service (AAS) during hours tower is closed. Hours shown are local time. Radio call provided if different from tower name.

Automatic Terminal Information Service (ATIS) frequencies, shown on the face of the chart are normal arriving frequencies, all ATIS frequencies available are tabulated below.

ASR and/or PAR indicates Radar Instrument Approach available.

CONTROL TOWER	RADIO CALL	OPERATES	ATIS	FREQ	ASR/PAR
BOEING FIELD/ KING CO INTL	BOEING	CONTINUOUS	127.75	118.3 120.6 257.8	
GRAY AAF		CONTINUOUS	124.65 248.2	126.2 241.0	ASR/PAR
McCHORD AFB		CONTINUOUS	109.6 270.1	124.8 259.3	
OLYMPIA		0800-2000		124.4 233.2	
RENTON		0700-2200	126.95	124.7 256.9	
SEATTLE-TACOMA INTL	SEATTLE	CONTINUOUS	118.0	119.9 239.3	ASR
SNOHOMISH CO (PAINE FIELD)	PAINE	0700-2100	128.65	121.3 229.4	
TACOMA NARROWS	TACOMA	0800-2000	124.05	118.5 241.2	

ARSA, TRSA, AND SELECTED RADAR APPROACH CONTROL FREQUENCIES

TACOMA-McCHORD TRSA	125.4 391.9 121.1 290.9

SPECIAL USE AIRSPACE ON SEATTLE VFR TERMINAL AREA CHART

Unless otherwise noted altitudes are MSL and in feet, time is local.
Contact nearest FSS for information.
†Other time by NOTAM, contact FSS.

The word "TO" an altitude means "To and including."
FL – Flight Level
NO A/G – No air to ground communications

U.S. P-PROHIBITED, R-RESTRICTED, A-ALERT, W-WARNING, MOA-MILITARY OPERATIONS AREA

NUMBER	LOCATION	ALTITUDE	TIME OF USE	CONTROLLING AGENCY
R-6703A	FORT LEWIS, WA	TO 14,000	0700-2300 MON-FRI O/T BY NOTAM 2 HRS IN ADVANCE	SEATTLE-TACOMA APP CON
R-6703B,D	FORT LEWIS, WA	TO 5,000	0700-2300 MON-FRI O/T BY NOTAM 2 HRS IN ADVANCE	SEATTLE-TACOMA APP CON
R-6703C	FORT LEWIS, WA	TO 14,000	INTERMITTENT BY NOTAM 2 HRS IN ADVANCE	SEATTLE-TACOMA APP CON

5-4-89

MOA NAME	ALTITUDE OF USE*	TIME OF USE†	CONTROLLING AGENCY
CHINOOK A	300 TO 5000	CONTINUOUS DAYLIGHT	ZSE CNTR
RAINIER 1, 2, 3	2000 TO 9000	INTERMITTENT BY NOTAM	FAA, SEATTLE-TACOMA APP CON

*Altitudes indicate floor of MOA. All MOA's extend to but do not include FL 180 unless otherwise indicated in tabulation or on chart.

C55.416/11:

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National Ocean Service

VFR TERMINAL AREA CHART
SEATTLE

AIRPORTS

Other than hard-surfaced runways

Hard-surfaced runways 1500 ft or greater

Seaplane Base (SPB)

All recognizable hard-surfaced runways, including those closed are shown for visual identification.

ADDITIONAL AIRPORT INFORMATION

(R) Private (Pvt) Non-public use, having emergency or landmark value.

(M) Military Other than hard-surfaced. All military airports are identified by abbreviations AFB, NAS, AAF, etc. For complete airport information consult DOD FLIP.

(H) (U) (X) (F)

Services: Fuel available and field tended during normal working hours depicted by use of ticks around basic airport symbol. Consult A/FD for service availability of airports with hard-surfaced runways under 1,000 ft. or grass.

Rotating light in operation Sunset to Sunrise

AIRPORT DATA

Blue indicates Special Traffic Area (See FAR 93)

NAME 118.3 124.9 03 L 92 122.95 VFR Advsry 125.3 Airport of entry

FSS Flight Service Station

CT 118.3 Control Tower (CT) - primary frequency

Star indicates operation part time. See lower frequency indication for hours of operation.

ATIS 124.9 Automatic Terminal Information Service

UNICOM Air/ground radio service available.

VFR Advsry VFR Advisory Service available where ATC not in operation.

03 Elevation in feet.

Lighting in operation Sunset to Sunrise.

Lighting available on request, pilot controlled lighting.

92 Length of runway in hundreds of feet. Additional runway length may be available.

When facility or information is lacking, the respective item is omitted. All lighting notes refer to runway lights. Runway may not be the entire length of the runway as all runways are listed.

NFCT Non-Federal Control Tower.

RADIO AIDS TO NAVIGATION AND COMMUNICATION BOXES

VHF OMNI RANGE (VOR)

VORTAC

VOR/DME

Non-Directional Radiobeacon

RBn

Marine Radiobeacon

122.1R 122.6 123.6

OAKDALE 362 116.8 OAK

Underline indicates no voice on this freq.

Square indicates TWEB, AWOS or HIWAS available at this NAVAID.

R receive only

T transmit only

122.1R

POINT LOMA 302 11 (+30) & (+60)

Other facilities, i.e., Commercial Broadcast Stations, FSS, Outlets, RCO, etc.

122.1R

CHICAGO (OBK)

Heavy line box indicates Flight Service Station (FSS). Freqs 121.5, 122.2, 243.0 and 255.4 are normally available in FSSs and are not shown above them. All other freqs are shown.

For Airport Advisory Service use FSS freq 123.6.

In Canada all available FSS frequencies are shown.

Frequencies above this line box serve no NAVAID. Other freqs of the FSS may be available, determined by time and terrain. Consult Airport Facility Directory for complete information.

122.1R

MIAMI Controlling FSS

AIRPORT TRAFFIC SERVICE AND AIRSPACE INFORMATION

AIRSPACE INFORMATION

Only the controlled and reserved airspace effective below 18,000 ft MSL are shown on this chart. All times are local.

180° → V 3

Low Altitude Federal Airways are indicated by center line.

TA - Transition Area.

The limits of controlled airspace are shown by tint boards (vignette) and are color-coded in blue and magenta.

Floors 700 feet above surface

Floors 1200 feet above surface

Floors other than 700 feet or 1200 feet above surface

2000 2000 MSL

Prohibited, Restricted, Warning and Alert Areas

MOA Military Operations Area

CZ Control Zone

TTTTT CZ Extends upward from surface

CZ - Area which, if not being used by special VFR flight, is Class C or D airspace.

2049 1149 UC Elevation of the top above mean sea level. Lowest altitude (floor) above which the airspace is designated. Under construction, if reported, position and elevation are verified.

CAUTION: Only wires not marked on charts are those over 1,000 ft above the surface.

NAME Red, Blue or Black

Special Airport Traffic Areas

Special Air Traffic Rules (See F.A.R. Part 93 for details)

TOPOGRAPHICAL INFORMATION

TCA Terminal Control Area

Mode C Veil See F.A.R. 91.24 AIM

ARSA Airport Radar Service Area

IR292 MTR Military Training Route

Instrument Approach Area

OBSTRUCTIONS

1000 ft and higher AGE

below 1000 ft AGE

Group Obstruction

Obstruction with high intensity white obstruction lights

Obstruction with red obstruction lights

Under construction, if reported, position and elevation verified.

CAUTION: Only wires not marked on charts are those over 1,000 ft above the surface.

MISCELLANEOUS

Aerial Cable

Ultralight Flight Park

Glider Operations

Parachute Jumping Area See Airport Facility Directory

Intersection: Aircraft are directed to report passing facilities when established.

Point-to-Point Low Altitude Route

Special Use Airspace Boundary

Isogonic Line

Magnetic Variation

Obstruction

Lighted Obstruction

Airport Rotating Beacon

Lighted Airport

Seaplane Base

Heliport

Lighted Heliport

Military Airport

Private Airport

Emergency Airport

Control Tower

Non-Directional Beacon

Lighted Non-Directional Beacon

VOR, VORTAC, VOR/DME

Flight Service Station

Airport Traffic Service

Airport Advisory Service

Weather Reporting Station

Radio Broadcast Station

Hard Surface Runway

Other Than Hard Surface Runway

Unpaved or Dirt Runway

Under Construction

Runway Numbers

Runway Lights

Rotating Beacon

Taxiway

Helicopter Landing Area

Helicopter Alighting Area

Helicopter Takeoff Area

Helicopter Hover Taxi Route

Helicopter Air Route

Helicopter Emergency Landing Area

Helicopter Refueling Area

Helicopter Parking Area

Helicopter Terminal

Helicopter Control Tower

Helicopter Air Traffic Control Center

Helicopter Flight Service Station

Helicopter Weather Reporting Station

Helicopter Radio Broadcast Station

Helicopter Hospital

Helicopter Emergency Service

Helicopter Rescue Unit

Helicopter Ambulance

Helicopter Crash Rescue Unit

Helicopter Fire Station

Helicopter Police Station

Helicopter Refueling Station

Helicopter Repair Station

Helicopter Maintenance Station

Helicopter Parts Store

Helicopter Supply Store

Helicopter Sales Store

Helicopter Rental Store

Helicopter Training School

Helicopter Flight School

Helicopter Flight Instructor

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SEATTLE TERMINAL CONTROL AREA (TCA)

OPERATING RULES AND PILOT/EQUIPMENT REQUIREMENTS. Regardless of weather conditions, an ATC authorization is required prior to operating within a TCA. Pilots should not request an authorization to operate within a TCA unless the requirements of FAR 91.24 and FAR 91.90 are met. Included among these requirements are:

1. Unless otherwise authorized by ATC, an operable two-way radio capable of communicating with ATC on appropriate frequencies for that terminal control area.
2. No person may takeoff or land a civil aircraft at an airport within a TCA or operate a civil aircraft within a terminal control area unless:
   (a) The pilot-in-command holds at least a private pilot certificate; or,
   (b) The aircraft is operated by a student pilot who has met the requirements of FAR 61.95.
3. Unless otherwise authorized by ATC, each person operating a large turbine engine-powered airplane to or from a primary airport shall operate at or above the designated floors while within the lateral limits of the TCA.
4. An operable VOR or TACAN receiver (except for helicopters until 7/1/89).
5. A 4096 code transponder with automatic altitude reporting equipment.

NOTE: ATC may, upon notification, immediately authorize a deviation from the altitude reporting equipment requirement; however, request for a deviation from the 4096 transponder equipment requirement must be submitted to the controlling ATC facility at least one hour before the proposed operation.

FLIGHT PROCEDURES

IFR Flights – Aircraft operating within the Seattle TCA must be operated in accordance with ATC clearances and instructions.

VFR Flights

1. Aircraft arriving from outside the boundaries of the TCA should contact Seattle Approach Control on the specified frequencies and in relation to the geographical or radio fixes shown on the chart as flagged check points. When arriving aircraft are operating beneath the floor of the TCA on initial contact, communications should be established with Seattle Approach Control in relation to prominent landmarks or DME distances from the Seattle VORTAC. This will permit proper sequencing and spacing of aircraft.
2. Aircraft departing the primary airport are requested to advise Clearance Delivery prior to taxiing of their intended altitude and direction of flight to depart the TCA. Aircraft departing from other than Seattle-Tacoma International Airport whose route of flight would penetrate the TCA should give this information to ATC on appropriate frequencies.
3. Aircraft desiring to transit the TCA may obtain an ATC clearance and will be handled on an equitable "first-come, first-served basis".

ATC PROCEDURES

All aircraft will be controlled and separated while operating within the TCA, except helicopters need not be separated from other helicopters. Although radar separation will be the primary standard used, approved visual and other nonradar procedures will be applied as required or deemed appropriate. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis to aircraft operating outside of the TCA.

NOTE: Assignment of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with visual flight rules is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.